

REMARKS

Claim 37 has been added. Claims 12, 15-26, 29-35 and 37 are now pending in this application.

Claims 12, 15-26 and 29-35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Brotman et al. (U.S. Patent No. 5,917,889; hereinafter Brotman) in view of McAllister et al. (U.S. Patent No. 6,421,672; hereinafter McAllister). The rejection is respectfully traversed.

Claim 12 recites a method for interpreting input that includes receiving a dual tone multi-frequency (DTMF) key sequence over the telephone interface and determining a constrained recognition grammar to recognize a set of utterances, wherein each utterance of the set has an associated alphanumeric string identifier that maps to a DTMF sequence that is equivalent to the DTMF key sequence. Claim 12 also recites determining an order associated with the set of utterances based on a weighting factor and playing a first audio message over the telephone interface to solicit a voice input, the first audio message comprising the set of utterances in the determined order.

The Office Action states that Brotman discloses the claimed receiving a DTMF sequence, determining a constrained recognition grammar and playing a first audio message over the telephone interface to solicit a voice input (Office Action – pages 2-3). Brotman may disclose receiving a DTMF string, creating a grammar for limited domain recognition and prompting the user to utter the characters corresponding to the string of DTMF characters (Brotman – col. 4, lines 15-65). Brotman, however, does not disclose or suggest playing an audio message over the telephone interface, where the audio message comprises the set of utterances, as required by claim 12. That is, Brotman merely discloses providing an audio message in which the user is requested to

spell or voice a string corresponding to the entered DTMF input (Brotman – col. 4, lines 60-65).

This disclosure in Brotman is not equivalent to and does not suggest playing an audio message that includes a set of utterances, where each utterance has an associated alphanumeric string identifier that maps to a DTMF sequence that is equivalent to the received DTMF sequence, as required by claim 12.

The Office Action admits that Brotman does not disclose determining an order associated with the set of utterances based on a weighting factor, wherein the first audio message comprises the set of utterances in the determined order (Office Action – page 3). Initially, the applicants reiterate that Brotman does not disclose playing an audio message that comprises a set of utterances, much less a set of utterances in a determined order based on a weighting factor, as required by claim 12.

The Office Action, however, states that McAllister discloses determining an order associated with the set of utterances based on a weighting factor, wherein the first audio message comprises the set of utterances in the determined order and points to columns 2-4 of McAllister for support (Office Action – page 3). The applicants respectfully disagree.

McAllister discloses a database retrieval system in which the primary key, such as the name associated with a telephone directory listing may not be unique (McAllister – col. 2, lines 52-55). McAllister also discloses that if multiple candidate parties are identified, the system may provide the name and location of the identified listings (McAllister – col. 3, lines 7-54). McAllister further discloses that fuzzy logic may be used to select candidates and that the order of presentation of candidate names may be affected by such fuzzy logic (McAllister – col. 4, lines 14-21). McAllister, however, does not disclose or suggest determining an order associated with a set of utterances based on a weighting factor, where each utterance in the set has an alphanumeric string identifier that

maps to a DTMF key sequence received over a telephone interface. That is, McAllister merely discloses ordering a set of candidate parties corresponding to a voiced request from a caller.

Therefore, even if McAllister was combined with Brotman, the combination would not disclose or suggest determining an order associated with the set of utterances based on a weighting factor (wherein each utterance of the set has an associated alphanumeric string identifier that maps to a DTMF sequence that is equivalent to a received DTMF sequence) and playing a first audio message over the telephone interface to solicit a voice input, the first audio message comprising the set of utterances in the determined order, as required by claim 12.

For at least these reasons, the combination of Brotman and McAllister does not disclose or suggest each of the features of claim 12.

In addition, even if, for the sake of argument, the combination of Brotman and McAllister could be fairly construed to disclose or suggest each of the features of claim 12, the applicants assert that the motivation to combine these references does not satisfy the requirements of 35 U.S.C. § 103. For example, the Office Action states that it would have been obvious to modify Brotman with the fuzzy logic of McAllister since the modification “would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary keys as suggested by McAllister (see column 2)” (Office Action – page 3).

The applicants assert that the alleged motivation for combining the cited references is merely a conclusory statement providing an alleged benefit of the combination. Such motivation does not satisfy the requirements of 35 U.S.C. § 103. While both references may involve automated call processing systems, Brotman and McAllister are directed toward different problems. For example, Brotman is directed to automatically capturing information received via DTMF input.

McAllister, in contrast, is directed to telephone directory searches using voice input. The applicants assert that the only motivation for combining portions of Brotman and McAllister comes from the applicants' disclosure and is based on impermissible hindsight in an attempt to reconstruct the applicants' invention using a reverse engineering approach. Such an approach is not appropriate and does not satisfy the requirements of 35 U.S.C. § 103.

For at least these reasons, withdrawal of the rejection and allowance of claim 12 are respectfully requested.

Claims 15-20 are dependent on claim 12 and are believed to be allowable for at least the reasons claim 12 is allowable. Accordingly, withdrawal of the rejection and allowance of claims 15-20 are respectfully requested.

Claims 21, 25 and 35 recite features similar to, but not identical to claim 12. For reasons similar to those discussed above with respect to claim 12, withdrawal of the rejection and allowance of claims 21, 25 and 35 are respectfully requested.

Claims 22-24, 26 and 29-34 variously depend on claims 21 and 25. These claims are believed to be allowable over the cited art for at least the reasons their respective independent claims are allowable. Accordingly, withdrawal of the rejection and allowance of claims 22-24, 26 and 29-34 are respectfully requested.

NEW CLAIM

New claim 37 is dependent on claim 12 and is believed to be allowable for at least the reasons claim 12 is allowable. In addition, claim 12 recites that the set of utterances comprises a plurality of keywords and processing the voice input using the constrained recognition grammar to determine a matching element comprises: comparing the voice input to the plurality of keywords to identify at

least one of the plurality of keywords. The cited art of record does not disclose or suggest these features. Accordingly, allowance of claim 37 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, the applicants respectfully request withdrawal of the outstanding rejection and the timely allowance of this application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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